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COUNTRY

Germany (Russian Zone)

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SUBJECT Re

Radar Research, Working Methods at the Oberspreewerk, Berlin

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REPORT NO

- Lt All radar equipment used at present by Russian military agencies has been developed by OSW. The results of German research work up to 1945 and American equipment available up to that time served as a basis for the development of the work. It was decided after various tests to use the pulse system (Bildimpuls) and the sample equipment was built accordingly.
- 2. Originally it had been the intention to develop only stationary equipment; however, after the development work had been terminated, it was decided to make the equipment also available for use in airplanes. The equipment was tested on the staking apparatus and was provided with elastic suspensions, etc.
- 3. At the present time, Russian tubes of American design are being used for the equipment. OSW developed only the cathode ray tube, of which 6,000 of one type are allegedly going to be manufactured by CSW during 1948.
- 4. The drawings and other data for the construction of radar equipment, including manufacturing directives, simplified instructions for carrying through tests which can be understood by persons lacking a specialized knowledge of physics, and the data pertaining to the testing and measuring equipment (exclusive of tools) are handed over to the Russians on 31 December 1947. OSW had previously made and tested two sets of sample equipment whose construction was based on this data. The equipment has an alterable wave length of 15 to 30 mm. The diameter of the screen of the cathode ray tube is 7", corresponding to a 7" tube. The measurements of the equipment unit are approximately 100 x 50 x 60 centimeters. It has 10 interchangeable sets being built according to the "Baukastensystem" (erector set system).
- 5. Since all equipment, with the exception of the cathode ray tubes, is being manufactured in Russia, nothing is known about the production difficulties encountered. In addition to the difficulties which are encountered in the OSW and were reported previously, such as shortage of machines, specialists, and raw-material, the greatest difficulty is the application of the luminous substance, which represents a very complicated process. The emulsified luminous substance is dropped through a thin glass tube onto the screen. Great care must be taken

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that the substance is distributed evenly. This work requires special skill and is done exclusively by trained women. At the present time, there is a shortage of women trained in this work. Experiments made to have this coating done by machine instead of by hand proved unsuccessful.

- 6. OSW is still in possession of the drawings and other construction data for radar equipment. These documents are kept in the secret archives which are supervised by Dr. Steudel, a former Nazi-party member and the former chief of the document center of the Iorenz concern in Berlin-Tempelhof. Steudel lives presumably in the American sector.
- 7. The difficulties encountered under Russian management and the issuance of contradictory orders continue. There is a growing tendency to introduce Russian working methods which means that the Russians do not admit that actual and unsurmountable difficulties might exist, but they make an individual or his "reactionary attitude" responsible for these difficulties. The Russians are therefore trying to introduce into German plants the Russian system of supervision, premiums, and punishment for non-compliance. The Russian management is less lenient with Russian personnel than with Germans. Major Koronczok, for instance, who is in charge of tube production, and who was unable to find the cause for the large number of defective tubes, is being recalled to Moscow; his successor has already arrived. Juergens, the German chief, has been released and has been replaced by H. Arlt and Malchow, formerly of Telefunken.
- 8. In 1947, the Russians began to set dates for the completion of development tasks and demanded a guarantee that the work would be finished by the end of the year. They actually succeeded, through threats, the development engineers fulfill the juota by almost one nundred percent by working overtime, on Sundays and holidays. This year, the Russians are exercising a very rigid control, i.e., inspections are made every month; if the dates are not kept, the responsible staff members are taken to task. The Russians have set dates even for problems which, in the past, had not been solved in Germany. Thus far, the methods adopted by the Russians have been successful, i.e., the Germans, fearing retaliations and their jobs, have done their utmost. They are aided inasmuch as the work involved is no pioneer work, but consists of reconstructing equipment which had already been manufactured, finding small defects, and making improvements. The Russians are calling new employees to the Komendatura, prior to their taking over their new jobs, and expect good results from this procedure,
- 9. The Russians tried to introduce a new system of premiums, i.e. they proposed that only men working on development work and on American type tubes be given premiums; however, they had to abandon this project after the shop steward protested against it.
- 10. At the beginning of June, no more molybdenum and wolfram wire will be available for the "Wendel" (spiral). Since it is impossible to secure raw materials within Germany, it might have to be shipped from Russia.
- It is planned to build several smelting machines which will serve several purposes for the manufacture of tubes in Russia. The man in charge of manufacture was to fly to Moscow to demonstrate the machines; however, he refused to go, since Steimel, the former director of the Telefunken tube plant in Schoeneberg, went on a similar mission to Moscow from which he did not return.



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- 12. Since the Russian management of OSW was unsuccessful in its attempt to secure a few machines for the manufacture of tubes from the Siemens-Werke, Arnstadt, which is being dismantled, all pumps, coaling machines, smelting apparatus, etc., must be reconstructed in OSW; however, no drawings are available. This work will require about 10,000 man-hours. At the present time, OSW is still short of approximately 30% of tube specialists, mechanics, etc. The plant was unable to hire these men in the Russian Zone.
- 13. According to directives from Moscow, only the American and Russian tubes mentioned below may be used. German tubes may only be used in exceptionable cases, i.e., only when it is impossible to replace them.

American tubes:		SP 42-D
	6 н 6	6 A G 5 (6 A G 7?)
	6 S I 7 (6 S J 7?)	6 N 7
	2 X 2/877	6 S N 7
	V U 111	8 3
	R C A 955	7-62-D
	5 Y 3 G	6 E 5
	6 L 6	6 VG (6 ~ 6 V 6?)
	6 S K 7	RCA 954
	VR 105-30	9 004
	6 A B 7	6 S A 7

Russian tubes: 25 / C BO 188 B 161

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